

**Listing of Claims:**

1. (previously presented) In a digital cordless telephone system, a full-duplex audio path between a base unit and a remote handset, comprising:

an unbalanced coding scheme wherein digital audio transmitted in a first direction over said full-duplex audio path is encoded using a first encoding scheme different from a second encoding scheme used to encode digital audio transmitted over said full-duplex audio path in a second direction opposite said first direction;

wherein said digital audio encoded using said first encoding scheme is transmitted in said first direction simultaneously with said digital audio encoded using said second encoding scheme being transmitted in said second direction.

2. (original) In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 1, wherein:

a first encoding algorithm of said first encoding scheme is different from a second encoding algorithm of said second encoding scheme.

3. (original) In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 1, wherein:

a bit rate of said first encoding scheme is different from a bit rate of said second encoding scheme.

4. (original) In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 2, wherein:

a bit rate of said first encoding scheme is substantially equal to a bit rate of said second encoding scheme.

5. (original) In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 1, wherein:

    said first encoding scheme is provided in a base unit of said digital cordless telephone system; and

    said second encoding scheme is provided in a remote handset of said digital cordless telephone system.

6. (original) In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 5, wherein:

    said first encoding scheme comprises uncompressed encoding.

7. (original) In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 6, wherein:

    said second encoding scheme comprises ADPCM encoding.

8. (original) In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 7, wherein:

    said ADPCM encoding has a bit rate of no greater than 32 kb/s.

9. (original) In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 6, wherein:

    said uncompressed encoding comprises at least one of  $\mu$ -law and A-law encoding at 64 kb/s.

10. (previously presented) A method of providing an unbalanced coding scheme in a digital cordless telephone, comprising:

providing a first radio frequency bandwidth for transmission of encoded digitized audio data from a base unit to a corresponding remote handset; and

providing a second radio frequency bandwidth different from said first radio frequency bandwidth, for transmission of encoded digitized audio data from said remote handset to said base unit;

wherein said first radio frequency bandwidth is utilized simultaneously with said second radio frequency bandwidth.

11. (original) The method of providing an unbalanced coding scheme in a digital cordless telephone according to claim 10, wherein:

said first radio frequency bandwidth is significantly larger than said second radio frequency bandwidth.

12. (previously presented) Apparatus for providing an unbalanced coding scheme in a digital cordless telephone, comprising:

means for providing a first radio frequency bandwidth for transmission of encoded digitized audio data from a base unit to a corresponding remote handset; and

means for providing a second radio frequency bandwidth different from said first radio frequency bandwidth, for transmission of encoded digitized audio data from said remote handset to said base unit

wherein said first radio frequency bandwidth is utilized simultaneously with said second radio frequency bandwidth.

13. (original) The apparatus for providing an unbalanced coding scheme in a digital cordless telephone according to claim 12, wherein:

said first radio frequency bandwidth is significantly larger than said second radio frequency bandwidth.

14. (previously presented) A digital cordless telephone system, comprising:

a base unit having an audio encoding scheme of a first type; and

a remote handset having an audio encoding scheme of a second type different from said first type

wherein said digital cordless telephone system is operable to utilize said audio encoding scheme of said first type simultaneously with said audio encoding scheme of said second type.

15. (original) The digital cordless telephone system according to claim 14, wherein:

said first type encoding scheme in said base unit has a faster bit rate than said second type encoding scheme in said remote handset.

16. (original) The digital cordless telephone system according to claim 14, wherein:

said first type encoding scheme comprises one of A-law and u-law; and

said second type encoding scheme comprises one of ADPCM and CELP.

17. (previously presented) In a digital cordless telephone system, a full-duplex audio path between a base unit and a remote handset, comprising:

an unbalanced coding scheme wherein digital audio transmitted in a first direction over said full-duplex audio path is encoded using a first analog-to-digital conversion precision different from a second analog-to-digital conversion precision used to encode digital audio transmitted over said full-duplex audio path in a second direction opposite said first direction;

wherein said digital audio encoded using said first analog-to-digital conversion precision is transmitted in said first direction simultaneously with said digital audio encoded using said second analog-to-digital conversion precision being transmitted in said second direction.

18. (original) In a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 17, wherein:

    said first analog-to-digital precision is 12 bits or fewer; and  
    said second analog-to-digital precision is greater than 12 bits.

19. (previously presented) In a digital communications system, a full-duplex audio path between two devices communicating with one another, comprising:

    an unbalanced coding scheme wherein digital audio transmitted in a first direction over said full-duplex audio path is encoded using a first encoding scheme different from a second encoding scheme used to encode digital audio transmitted over said full-duplex audio path in a second direction opposite said first direction

    wherein said digital audio encoded using said first encoding scheme is transmitted in said first direction simultaneously with said digital audio encoded using said second encoding scheme being transmitted in said second direction.

20. (previously presented) In a digital communications system according to claim 19, wherein:

    a first encoding algorithm of said first encoding scheme is different from a second encoding algorithm of said second encoding scheme.

21. (previously presented) In a digital communications system according to claim 19, wherein:

    a bit rate of said first encoding scheme is different from a bit rate of said second encoding scheme.

22. (previously presented) In a digital communications system according to claim 20, wherein:

a bit rate of said first encoding scheme is substantially equal to a bit rate of said second encoding scheme.

23. (previously presented) In a digital communications system according to claim 19, wherein:

said first encoding scheme is provided in a base unit of a cellular network; and

said second encoding scheme is provided in a mobile handset of said cellular network.

24. (previously presented) In a digital communications system according to claim 23, wherein:

said first encoding scheme comprises uncompressed encoding.

25. (previously presented) In a digital communications system according to claim 24, wherein:

said second encoding scheme comprises ADPCM encoding.

26. (previously presented) In a digital communications system according to claim 25, wherein:

said ADPCM encoding has a bit rate of no greater than 32 kb/s.

27. (previously presented) In a digital communications system according to claim 24, wherein:

said uncompressed encoding comprises at least one of  $\mu$ -law and A-law encoding at 64 kb/s.